

Australian Natural History Medallion 2009: Richard Shine AM

The winner of the 2009 Australian Natural History Medallion is Dr Richard Shine, Professor in Biology, University of Sydney. In the past ten years Professor Shine has authored more than 400 scientific papers on herpetological subjects, and received a number of awards marking excellence in his field. The Australian Society of Herpetologists and the ACT Herpetological Society jointly nominated Professor Shine, to recognise his lifetime's work—devoted not only to discovering new information about the natural history of reptiles, but also to disseminating that knowledge widely to influence public attitudes and to assist in the conservation of Australian fauna.

Dr Shine has provided reliable information on basic life-history and ecological characteristics of a large proportion of the snake fauna of Australia. In addition, he has conducted or initiated intensive field studies to elucidate information necessary for the conservation of species and the ecosystems that they inhabit. In 1992 his popular book *Australian Snakes - a natural history* received the Whitley Award for the best Zoological Handbook. It has since been reprinted a number of times (1998, 1999, 2001 and 2004) and has influenced a whole generation of young Australians to see snakes in a more favourable light.

More recently, Rick has initiated a wide-ranging project on the biology, impact and control of cane toads. Perhaps the best example of his extracurricular effort is his website <www.canetoadsinoz.com>, which he and his wife have set up to provide the general public with quick and easy access to reliable information about this invasive pest.

Amongst Professor Shine's awards are the Clarke Medal of the Royal Society of New South Wales (1990); the Mueller Medal (ANZAAS - 2005); and the Eureka Prize for Biodiversity Research (2006). He was elected a Fellow of the Linnean Society of London in 2005 and, in the same year, was appointed as a Member of the Order of Australia. Overseas awards include the E.O. Wilson Naturalist Award, presented by the American Society of Naturalists, for contri-

butions to the evolutionary biology and natural history of snakes (2000), and the Henry S. Fitch Award, presented by the American Society of Naturalists and Herpetologists, for outstanding contributions to herpetology (2003).

Much of Rick's efforts have focused on long-term projects, and address issues that occur on a timescale inaccessible to most scientific research. Many of the processes of critical importance to population viability—such as responses to changing climates or the invasion of feral organisms—play out over long periods. For example, 25 years ago Rick initiated intensive, highly detailed studies on the reptiles and amphibians of the coastal floodplains of the Northern Territory. He and his colleagues have been able to understand, and therefore predict, the ways in which year-to-year variation in weather conditions translates into shifts in prey densities, and thus into demographic features (recruitment, survival, growth, reproductive output) of predator populations. His empirically-validated models of the links between climate and population viability comprise a powerful tool for understanding, predicting and managing the impacts of future climate change.

Professor Shine has made detailed studies on the ecology of a highly endangered snake in eastern New South Wales (the Broad-headed Snake *Hoplocephalus bungaroides*) and on the biology and impact of cane toads in the Australian tropics. Currently, he has major collaborative projects with the NSW National Parks and Wildlife Service, Zoos Victoria and the Australian Reptile Park, not only to improve understanding of the processes that threaten the endangered broad-headed snakes, but also to remedy those problems by landscape-scale habitat improvement measures. That project has involved construction and deployment of artificial rocks to replace those stolen for garden ornamentation, and large-scale forest thinning to allow sun penetration to the snake's favoured rocky crevice habitats. Similarly, he is working with Federal Department of Environment and Heritage and the Western Australian Department of Conservation to mitigate impacts of

the invasive cane toad on the endemic fauna of the Kimberley region.

Just as important as Rick's direct contributions, has been his mentoring of more than 50 research students, and his encouragement of amateur reptile enthusiasts. By giving frequent talks at local community group meetings, he has provided inspiration and guidance to younger members of the reptile-enthusiast community. Many of his former students have attained responsible positions in Australian universities and museums, greatly expanding his influence on Australian herpetology.

Rick Shine has contributed prolifically to popular magazines and appeared, literally, hundreds of times on radio and television shows to promote an understanding of the natural history of the Australian reptile fauna. Stories and

interviews about his research have appeared in every major Australian newspaper over the last few years, on most major television stations, and on many national and local radio stations.

Professor Shine's enthusiasm for communicating with the general public has contributed enormously to the rapprochement that is continuing to build between Australians and components of their native fauna that previously were feared, hated or neglected. He has been an extremely influential figure in studying and publicising the natural history of Australian reptiles.

Ian Endersby

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Australian Natural History Medallion Trust Fund

Donations were gratefully received during 2009 from the following:

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Philip Rance	15.00
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If you would like to contribute to this fund, which supports the Australian Natural History Medallion, donations should be sent to: The Treasurer, Field Naturalists Club of Victoria, Locked Bag 3, Blackburn, Vic. 3130. Cheques should be made payable to the 'Australian Natural History Medallion Trust Fund'.

The medallion is awarded annually to a person who is considered to have made the most significant contribution to the understanding of Australian natural history in the last ten years.

Ian D Endersby
Secretary
ANHM Committee